IN THE UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF TEXAS
HOUSTON DIVISION

M-I L.L.C. d/b/a M-I SWACO,	§	
	§	
Plaintiff,	§	
	§	
v.	§	CIVIL ACTION NO. H-18-1099
	§	
Q'MAX SOLUTIONS, INC.; Q'MAX AMERICA, INC.; and SANJIT ROY,	§	
	§	
Defendants.	§	

MEMORANDUM OPINION AND ORDER

M-I L.L.C. d/b/a M-I SWACO ("M-I") filed this action against Q'Max Solutions, Inc., Q'Max America, Inc. (together "Q'Max"), and Sanjit Roy (collectively, "Defendants") alleging the theft and use of M-I's intellectual property and software. M-I alleges claims for copyright infringement, misappropriation of trade secrets, and conversion against all Defendants and breach of contract and breach of fiduciary duty claims against Roy.[1] Pending before the court are Plaintiff M-I LLC's Motion to Enforce the Terms of the Protective Order and Compel the Destruction of an Inadvertently Produced Document ("Motion to Compel") [Docket Entry No. 134], Defendants' Motion for Summary Judgment as to Copyright Infringement ("Defendants' MSJ") [Docket Entry No. 128], and Defendants' Motion to Exclude Testimony of David Leathers and

[1]Complaint, Docket Entry No. 1, p. 5 ¶ 13, pp. 8-9 ¶ 30, pp. 10-11 ¶¶ 41-42, p. 13 ¶¶ 55-56, p. 16 ¶¶ 70-75, p. 17 ¶ 83. All page numbers for docket entries in the record refer to the pagination inserted at the top of the page by the court's electronic filing system, CM/ECF.

Expert Testimony on Copyright Damages ("Motion to Exclude Expert Testimony") [Docket Entry No. 126]. For the reasons explained below, the Motion for Protective Order will be granted, Defendants' MSJ will be granted, and the Motion to Exclude Expert Testimony will be denied.

I. Factual and Procedural Background

The court will not describe in detail the background of this action because it has done so in its previous Memorandum Opinion and Order granting in part and denying in part M-I's motion for summary judgment as to its breach of contract and misappropriation of trade secrets claims.[2] The facts below are those that relate specifically to M-I's copyright infringement claim.

M-I developed Virtual Hydraulics ("VH") and Presspro RT ("PPRT"), which are hydraulics simulation software used in oil and gas drilling. The software permits users to enter parameters about a well and to simulate the hydraulics that will occur within the well at various depths. M-I asserts copyright over VH, PPRT, and proprietary databases (the "Copyrighted Works"). Until May of 2014, Sanjit Roy was employed by M-I and had access to the Copyrighted Works. When Roy left M-I, he kept copies of confidential information on computers and external hard drives, including a full backup of his M-I computer that contained the source code for various versions of VH and PPRT.

[2]Memorandum Opinion and Order, Docket Entry No. 111, pp. 1-4.

Roy joined Q'Max, a competitor of M-I, in April of 2015. Roy and Q'Max developed MAXSITE Hydraulics ("MAXSITE"), a software program with the same models as VH that could compete with VH in the virtual hydraulic simulation space. M-I alleges that Roy and Q'Max copied the Copyrighted Works; specifically, M-I claims that MAXSITE infringes on its copyright because it was created by copying the Copyrighted Works and is substantially similar to them.

M-I filed this action on April 6, 2018, asserting, among other claims, copyright infringement.[3] Defendants seek summary judgment only as to M-I's copyright infringement claim.[4] M-I responded on December 9, 2019.[5] Defendants replied on December 16, 2019,[6] and M-I filed a surreply on April 29, 2020.[7]

II. Defendants' Motion for Summary Judgment

A. Standard of Review

Summary judgment is appropriate if the movant establishes that there is no genuine dispute about any material fact and the movant

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[3]Complaint, Docket Entry No. 1, p. 7.

[4]Defendants' MSJ, Docket Entry No. 128, p. 1.

[5]Plaintiff M-I LLC's Opposition to Defendants' Motion for Summary Judgment as to Copyright Infringement ("M-I's MSJ Response"), Docket Entry No. 132.

[6]Defendants' Reply in Support of Motion for Summary Judgment as to Copyright Infringement ("Defendants' MSJ Reply"), Docket Entry No. 136.

[7]Plaintiff M-I LLC's Surreply to Defendants' Reply in Support of Motion for Summary Judgment as to Copyright Infringement ("M-I's MSJ Surreply"), Docket Entry No. 144.

is entitled to judgment as a matter of law. Fed. R. Civ. P. 56(a). Disputes about material facts are genuine "if the evidence is such that a reasonable jury could return a verdict for the nonmoving party." Anderson v. Liberty Lobby, Inc., 106 S. Ct. 2505, 2510 (1986).

The party moving for summary judgment must show the absence of a genuine issue of material fact. Exxon Corp. v. Oxxford Clothes, Inc., 109 F.3d 1070, 1074 (5th Cir. 1997). "If the moving party fails to meet this initial burden, the motion must be denied, regardless of the nonmovant's response." Little v. Liquid Air Corp., 37 F.3d 1069, 1075 (5th Cir. 1994) (en banc) (per curiam) (citing Celotex Corp. v. Catrett, 106 S. Ct. 2548, 2553 (1986)). If the moving party meets this burden, Rule 56© requires the nonmovant to go beyond the pleadings and show by affidavits, depositions, answers to interrogatories, admissions on file, or other admissible evidence that specific facts exist over which there is a genuine issue for trial. Id. The nonmovant "must do more than simply show that there is some metaphysical doubt as to the material facts." Matsushita Electric Industrial Co., Ltd. v. Zenith Radio Corp., 106 S. Ct. 1348, 1356 (1986).

In reviewing the evidence "the court must draw all reasonable inferences in favor of the nonmoving party, and it may not make credibility determinations or weigh the evidence." Reeves v. Sanderson Plumbing Products, Inc., 120 S. Ct. 2097, 2110 (2000). The court resolves factual controversies in favor of the nonmovant,

"but only when there is an actual controversy, that is, when both parties have submitted evidence of contradictory facts." Little, 37 F.3d at 1075.

B. Applicable Law

"To prove copyright infringement, a plaintiff must establish (1) ownership of a valid copyright; (2) factual copying; and (3) substantial similarity." Nola Spice Designs, L.L.C. v. Haydel Enterprises, Inc., 783 F.3d 527, 549 (5th Cir. 2015). The second element requires a showing that the defendant "actually used the copyrighted material to create his own work" and that "the copying is legally actionable." Engineering Dynamics, Inc. v. Structural Software, Inc., 26 F.3d 1335, 1340-41 (5th Cir. 1994)). There is no dispute that the copyrights M-I has asserted are valid.

Actual use of copyrighted material may be proven either by "direct evidence of copying or through circumstantial evidence demonstrating both (1) that the defendant had access to the copyrighted work and (2) that the two works are 'probatively' similar." General Universal Systems, Inc. v. Lee, 379 F.3d 131, 141 (5th Cir. 2004). "The access element is satisfied if the person who created the allegedly infringing work had a reasonable opportunity to view the copyrighted work. The second element – probative similarity – requires a showing that the works, 'when compared as a whole, are adequately similar to establish appropriation.'" Id.

"Not all copying, however, is copyright infringement." Feist Publications, Inc. v. Rural Telephone Service Co., Inc., 111 S. Ct. 1282, 1296 (1991). For copying to be legally actionable, the alleged infringing work must satisfy the third element by "bear[ing] a substantial similarity to the protected aspects of the original." Peel & Co, Inc. v. The Rug Market, 238 F.3d 391, 398 (5th Cir. 2001). Therefore, "[t]he inquiry focuses not on every aspect of the copyrighted work, but on those aspects of the plaintiff's work [that] are protect[a]ble under copyright laws and whether whatever copying took place appropriated those [protected] elements." T-Peg, Inc. v. Vermont Timber Works, Inc., 459 F.3d 97, 112 (1st Cir. 2006) (internal quotation marks and citations omitted). "[A]nyone may copy uncopyrightable elements in a copyrighted work." Engineering Dynamics, 26 F.3d at 1347. Given these limitations, "where the copyrighted work contains unprotectable elements, the first step is to distinguish between protectable and unprotectable elements of the copyrighted work." Nola Spice, 783 F.3d at 550. Once unprotectable elements are excluded, "[t]he next inquiry is whether the allegedly infringing work bears a substantial similarity to the protectable aspects of the original work." Id. The standard is "whether a layman would view the two works as 'substantially similar'" after comparing the works side-by-side. General Universal, 379 F.3d at 142. This is a question of fact on which summary judgment is only available if no reasonable juror could find substantial similarity of ideas and expression. Id.

Computer programs are entitled to copyright protection. General Universal, 379 F.3d at 142. Protection extends to both the literal elements - the source code and object code - and the nonliteral elements such as its "structure, sequence, organization, user interface, screen displays, and menu structures." Id. The Fifth Circuit has endorsed the "abstraction-filtration-comparison" test for assessing whether protectable expression in software has been improperly copied. Id. The test begins with abstraction, where the court "dissect[s] the allegedly copied program's structure and isolate[s] each level of abstraction contained within it." Id. "Second, the court filters out unprotectable expression by examining the structural components at each level of abstraction to determine whether they can be protected by copyright." Id. The court must filter out ideas, processes, facts, elements dictated by efficiency or external factors, and elements taken from the public domain, as these are not protected by copyright. Id. at 142-43. Finally, the court compares the filtered copyrighted software to the defendants' to determine whether a substantial portion was copied. Id. at 143.

C. Analysis

M-I alleges two types of copyright claims: (1) the claim against Roy for making copies of the Copyrighted Works, and (2) the claim against all Defendants that MAXSITE was produced by copying the Copyrighted Works. Defendants argue that they are entitled to

summary judgment against M-I's copyright claim on the basis that there is no substantial similarity between MAXSITE and the protected elements of M-I's Copyrighted Works.[8] Defendants argue that M-I has identified no protectable elements of the software that will survive filtration except the source code and that the source code of the two programs are not substantially similar. M-I responds that (1) the abstraction-filtration-comparison test does not apply, (2) even if the test applies, there are substantial similarities between MAXSITE and the Copyrighted Works, and that (3) Defendants' argument does not affect the copyright claim against Roy based on his making copies of the Copyrighted Works.[9]

1. The Abstraction-Filtration-Comparison Test Applies

As an initial matter, M-I disputes whether the court should rely on the abstraction-filtration-comparison test. M-I argues that the court should instead hold that the nonliteral elements of its Copyrighted Works are protectable based on tests stated in Torah Soft Ltd. v. Drosnin, 136 F. Supp. 2d 276 (S.D.N.Y. 2001), and Feist, 111 S. Ct. 1282.

M-I's argument lacks merit. It is well established in this circuit that courts should use the abstraction-filtration-comparison test to assess copyright infringement claims involving

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[8]Brief in Support of Defendants' Motion for Summary Judgment as to Copyright Infringement ("Defendants' MSJ Brief"), Docket Entry No. 129, p. 7.

[9]M-I's MSJ Response, Docket Entry No. 132, pp. 9, 10-11, 24.

nonliteral elements of computer programs. E.g., General Universal, 379 F.3d at 142; Beardmore v. Jacobsen, 131 F. Supp. 3d 656, 674 (S.D. Tex. 2015); Engenium Solutions, Inc. v. Symphonic Technologies, Inc., 924 F. Supp. 2d 757, 786-87 (S.D. Tex. 2013). Torah Soft and Feist do not speak to what framework a court should use to decide alleged infringement against a computer program. The principle M-I cites from Torah Soft is simply that a computer program's output may be protectable along with the program itself if the program, rather than the user, "suppl[ies] the lion's share of the creativity to create the screen display." 136 F. Supp. 2d at 283. The principle of Feist is simply that a work must be original in order to receive copyright protection. 111 S. Ct. at 345-46. These principles are properly applied within the abstraction-filtration-comparison test at the filtration stage to which of the program's non-literal elements may be protectable. Accordingly, the court will apply the abstraction-filtration-comparison test and assess these other tests for protectability at the filtration step.

2. Abstraction

The first step of the test is abstraction. The parties do not substantially disagree on the levels of abstraction by which the court should analyze the Copyrighted Works. Defendants state that the program can be abstracted into: (1) formulas and algorithms, (2) coefficients and constants, (3) architecture, modules, and

components, (4) test results, (5) user interfaces and outputs, and (6) the source code.[10] M-I states that the relevant levels of abstraction are: (1) the source code, (2) algorithms and data structures, (3) modules, (4) architecture or structure, and (5) the purpose of the program.[11] Neither side has argued that the court should not consider the levels of abstractions identified by the other. The court finds no reason to stray from the levels of abstraction proposed by the parties. M-I has not, however, argued that its Copyrighted Works contain protectable expression at the level of the purpose of the computer programs. Combining the parties' arguments, the court will analyze the program as divided into the following levels of abstraction: (1) coefficients and constants; (2) formulas and algorithms; (3) architecture and modules, (4) test results and data structures, and (5) user interfaces and outputs.

3. Filtration

The second step of the test is filtration. The court will assess the computer program at the different levels of abstraction to determine which parts of the program are protectable and which are not. M-I bears the burden of proof to demonstrate copyright infringement. Nola Spice, 783 F.3d at 549. Accordingly, where Defendants meet their burden by demonstrating that there is no

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[10]Defendants' MSJ Brief, Docket Entry No. 129, p. 11.

[11]M-I's MSJ Response, Docket Entry No. 132, p. 14.

genuine issue of material fact that an element of the Copyrighted Works are protectable, the burden shifts to M-I to point to summary-judgment evidence showing the contrary. Little, 37 F.3d at 1075.

a. Coefficients and Constants

Coefficients used within the Copyrighted Works are a component that expert testimony has identified as proprietary to M-I.[12] These coefficients "were developed and continuously refined by M-I after many years of gathering and analyzing laboratory data and actual wellsite data from many wells."[13] But "scientific observations of physical relationships . . . are not invented or created; they already exist and are merely observed, discovered and recorded. Such a discovery does not give rise to copyright protection." Gates Rubber Co. v. Bando Chemical Industries, Ltd., 9 F.3d 823, 842-43 (10th Cir. 1993). A constant or coefficient used by a computer program that reflects scientific observation and physical relationships is therefore not protected by copyright. Id. at 843; see 17 U.S.C. § 102(b) (excluding principles and discoveries from copyright protection). The coefficients accordingly must be filtered out and cannot be used as the basis for finding copyright infringement. M-I has not argued otherwise.

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[12]Declaration of Lucian K. Johnston, Exhibit E to Defendants' MSJ Brief, Docket Entry No. 129-5, p. 6 ¶ 10.

[13]Id.

b. Formulas and Algorithms

Expert testimony has also identified formulas used by the Copyrighted Works as proprietary.[14] Richard Hooper, an expert retained by M-I, identified a number of algorithms used by the Copyrighted Works.[15] In particular, Hooper's Report states that MAXSITE and the Copyrighted Works used algorithms that produced the same results in estimating pressure and temperature.[16] The report also states that the "hole cleaning functionality" present in both are implemented in similar ways using the same four pieces of functionality.[17] Defendants argue that algorithms and formulas may not be protected by copyright as a matter of law, and in the alternative the algorithms are in the public domain.[18] M-I argues that the specific "algorithm structures" as implemented with particular functions are protectable.[19]

The Copyright Act explicitly excludes any "procedure, process, system, [or] method of operation" from receiving copyright protection "regardless of the form in which it is . . . embodied in such work." 17 U.S.C. § 102(b). Copyright law protects only the

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[14]Id.

[15]Expert Report of Richard Hooper ("Hooper Report"), Exhibit D to Defendants' MSJ Brief, Docket Entry No. 129-4, pp. 47-54.

[16]Id. at 47-48 ¶ 131, 52 ¶ 141, 54 ¶ 145.

[17]Id. at 47-48 ¶¶ 131-133.

[18]Defendants' MSJ Brief, Docket Entry No. 129, pp. 14-15.

[19]M-I's MSJ Response, Docket Entry No. 132, p. 16.

original expression of a process or method, not the process or method itself. Atari Games Corp. v. Nintendo of America Inc., 975 F.2d 832, 839 (Fed. Cir. 1992). An algorithm is a specific series of steps that accomplish a particular operation and accordingly often embodies an unprotectable process. Gates Rubber, 9 F.3d at 835, 837. Computer program algorithms cannot receive copyright protection to the extent that they are simply a process or method of operation. Torah, 136 F. Supp. 2d at 291. It is therefore critical to distinguish the process embodied by a computer algorithm from the original expression of the algorithm. Typically, for the expression of a process to be protectable, it must be possible for the process to be expressed in multiple different way. Oracle America, Inc. v. Google Inc., 750 F.3d 1339, 1367 (Fed. Cir. 2014). And even when an algorithm is expression rather than process, it may still be unprotectable under other copyright doctrines. Gates Rubber, 9 F.3d at 845.

Hooper's expert report concludes that MAXSITE copied the algorithms for calculating pressure and temperature changes solely because the MAXSITE code and the PPRT code for those functions returned the same result. At most this shows that the MAXSITE algorithms use the same process as the PPRT algorithms; it does not show that MAXSITE copied any algorithm expressive component of the algorithm.

Hooper's analysis of the hole cleaning functionality is more detailed. Hooper demonstrates that the MAXSITE and PPRT hole

cleaning algorithms are implemented via four separate sub-functions. PPRT uses functions named "SetParameters," "GetCutConc," "GetSteadyHClean," and "GetSlipVelocity." MAXSITE uses functions named "SetParameters," "CalcCuttingConcentration," "GetSteadyHClean," and "SlipVelocity."[20] M-I argues that the choice to divide the hole cleaning algorithm into four sub-functions is protectable creative expression. The court disagrees. A process that requires the execution of several sub-processes is still an unprotectable process. Instructive is Hooper's description of the "GetSteadyHClean" functionality as a "recipe" using the same "series of steps."[21] Hooper's conclusion of infringement relies on the fact that the program algorithms used the same variables in the same series of steps to achieve the same outcomes. But this only demonstrates that they implement the same processes. M-I points to no evidence in the record that these processes could have been expressed without the use of sub-functions that have their own particular series of steps. The court concludes that there is no genuine issue of material fact as to whether the algorithms in the Copyrighted Works as claimed by M-I are subject to copyright protection. Because M-I seeks protection of the processes carried out by the algorithms rather than their specific expression, the algorithms cannot support a finding of copyright infringement.

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[20] Id.

[21] Hooper Report, Exhibit D to Defendants' MSJ Brief, Docket Entry No. 129-4, p. 51 ¶ 138.

c. Architecture and Modules

The program's architecture or structure is a description of how the program operates in terms of its various functions, which are performed by discrete modules, and how each of these modules interact with each other. Gates Rubber, 9 F.3d at 835. Modules, in turn, are groupings of data types with a particular result to be obtained or set of actions that may be performed. Id. The abstract idea of structuring functions of a computer program using a method or organizing principle is not protected by copyright. Oracle, 750 F.3d at 1367. Only the particular implementation of that idea may be protected. Id.

The structure of the program that Hooper identifies and M-I claims is protected is "a lower-layer that presents modular functionality to the layers above it for intermediate calculations and display on the user interface."[22] Defendants argue that this is a general statement of the basics of computing structuring and is therefore not protectable expression.[23] Defendants' rebuttal expert opines that Hooper's description of the architecture is simply that it is modular.[24] The court agrees. Hooper's report does not describe what is expressive about the Copyrighted Works'

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[22]M-I's MSJ Response, Docket Entry No. 132, p. 17; Hooper Report, Exhibit D to Defendants' MSJ Brief, Docket Entry No. 129-4, p. 57 ¶ 161.

[23]Defendants' MSJ Reply, Docket Entry No. 136, pp. 3-4.

[24]Expert Rebuttal Report of Ronald S. Schnell, Exhibit B to Defendants' MSJ Brief, Docket Entry No. 129-2, p. 27 ¶ 78.

architecture or modular system; it only likens the M-I and Q'Max architectures because they implement functions and models in a series of layered modules.[25] M-I specifies no part of the architecture that is protectable expression distinct from the idea of its organizational structure. The court concludes that the only element of the architecture that M-I has claimed as protected is the idea of its layered, modular functionality, for which copyright is not available.

Defendants argue that the modules themselves are not subject to copyright protection because under the scenes a faire doctrine their presence is dictated by the external factors of customer demands and the business served by MAXSITE.[26] The scenes a faire doctrine denies protection to "those expressions that are standard, stock, or common to a particular topic or that necessarily follow from a common theme or setting." Gates Rubber, 9 F.3d at 838. In addition to expressions that are "standard, stock, or common," the doctrine "excludes from protection those elements of a program that have been dictated by external factors." Id. "External factors may include: hardware standards and mechanical specifications, software standards and compatibility requirements, computer manufacturer design standards, target industry practices and

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[25]Hooper Report, Exhibit D to Defendants' MSJ Brief, Docket Entry No. 129-4, pp. 57-58 ¶¶ 161-171.

[26]Defendants' MSJ Brief, Docket Entry No. 129, p. 16.

demands, and computer industry programming practices." Id. (internal citations omitted).

Defendants point to testimony that the predictive hydraulics modeling programs for well drilling typically and reasonably would need to provide certain data in a certain way in order to be useful for customers.[27] This testimony also shows that implementing features offered by competitors in order to please customers is standard practice.[28] M-I's expert testified that M-I's Copyrighted Works are not unique in providing data on density, temperature, and annular velocity, or in accounting for variables such as low shear-rate viscosity.[29] Defendants also point to marketing material by a non-party competitor, Halliburton, that advertises its software as aiding oil rig operators by providing "accurate modeling of the pressure losses, hole cleaning and surge and swab pressure predictions."[30] The court is persuaded that this evidence shows no genuine issue of material fact as to whether modules for pressure loss, surge and swab, and hole cleaning are standard features in predictive hydraulics modeling programs. Because the undisputed

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[27]Oral and Videotaped Deposition of Lee Conn, Exhibit G to Defendants' MSJ Brief, Docket Entry No. 129-7, p. 8 lines 17-25, p. 9 lines 1-8.

[28]Id. at 14 lines 9-18.

[29]Id. at 10 lines 23-25, 11 lines 4-23, 12 lines 7-11.

[30]Halliburton, Drilling Fluids Graphics (DFG™) Software Allows Operator to Save Rig Time and Successfully Drill Challenging HPHT Well in Western Canada, Exhibit C to Defendant's MSJ Reply, Docket Entry No. 136-3.

summary-judgment evidence shows that the presence of these modules is dictated by industry standards and M-I has pointed to no particular aspect of the modules in its Copyrighted Works that are more than the standard expressions incidental to industry demand, the court concludes that the modules are not protectable.

d. Test Results and Data Structures

Among the Copyrighted Works described in the Complaint are "proprietary databases."[31] Hooper's expert report identifies two claimed databases among the information found to have been copied by Roy: "[I]nformation about the results of drilling with different fluids (the FANN 70 database)" and a "database relating to M-I's drilling logs from its activities around the world (ONE-TRAX)."[32] Defendants argue that these databases contain raw data resulting from testing that is not subject to copyright protection. M-I does not argue that the raw data is subject to copyright. M-I suggests that these databases should be considered at the level of abstraction of "data structures." M-I does not, however, argue that MAXSITE infringes on these data structures nor provide any analysis or authority to suggest that the data structures as used by the computer programs are protectable under the abstraction-filtration-comparison test. Accordingly, the court concludes that

[31]Complaint, Docket Entry No. 1, p. 6 ¶ 18, 7 ¶ 25.

[32]Hooper Report, Exhibit D to Defendants' MSJ Brief, Docket Entry No. 129-4, p. 11 ¶ 41.

Defendants are entitled to summary judgment that MAXSITE does not infringe on either the raw data in the databases or the data structures.

e. Graphical User Interfaces and Outputs

M-I claims copyright protection over the graphical user interfaces ("GUIs") used in its programs.[33] M-I limits the non-literal element of the GUIs that it claims as copyright to "the combination of the layout, color, order, direction, shape, and placement of output variables" - or the "look and feel" of the GUI.[34] Defendants argue that the elements of the GUIs are not protected by copyright because they are methods of operation or because they are unprotectable through the merger or scenes a faire doctrines.[35]

Much of Defendants' argument focuses on whether discrete elements within the GUIs such as the charts, output tables, command buttons, and module selection window, are subject to copyright protection.[36] M-I disclaims that these individual elements are copyrightable and claims only the GUIs' combination, layout, and presentation of these elements.[37] Defendants reply that if the

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[33]M-I's MSJ Response, Docket Entry No. 132, p. 18.

[34]Id.

[35]Defendants' MSJ Brief, Docket Entry No. 129, p. 20.

[36]Id. at 22-24.

[37]M-I's MSJ Response, Docket Entry No. 132, p. 18.

GUIs' individual elements cannot be protected, neither can their combined "look and feel."[38] But infringement may be based on an original selection and arrangement of unprotected elements. Apple Computer, Inc. v. Microsoft Corp., 35 F.3d 1435, 1446 (9th Cir. 1994). Nevertheless, the court cannot find infringement based on the "look and feel" of the GUIs without first filtering out elements that are not protectable. See id. ("[T]he party claiming infringement may place no reliance upon any similarity in expression resulting from unprotectable elements." (internal quotations omitted)).

Hooper's expert report identifies a number of elements. Those elements can be generally categorized as:

- Naming and organization of menus and options, such as an expandable tree menu;[39]
- Labeling and options for inputs and outputs;[40] and
- Selection, labeling, organization, ordering, and coloring of graphical output displays, such as the Virtual Hydraulics SnapShot.[41]

The merger doctrine prohibits copyright if an idea may only be expressed in a limited manner and therefore the idea and expression merge. Gates Rubber, 9 F.3d at 838. In a functional program the

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[38]Defendants' MSJ Reply, Docket Entry No. 136, p. 5.

[39]E.g., Hooper Report, Exhibit D to Defendants' MSJ Brief, Docket Entry No. 129-4, p. 26 ¶ 71.

[40]E.g., id. at 33 ¶ 92.

[41]E.g., id. at 40 ¶¶ 102-106.

idea of allowing users to input particular data and receive output of particular data necessarily merges with the labeling needed to communicate those inputs and outputs to the user. For example, the GUIs' use of labels such as "well geometry," "casing," "lining," "length," and "weight" to show the user where to input variables is necessary to implement the idea of allowing users to input the well geometry variables.[42] The idea of users inputting variables therefore merges with the functional labels that show where each variable should be placed and renders the labels unprotectable. The court need not examine every example in detail to conclude that the naming and labeling used in the GUIs are not protectable expression.

As explained above, the scenes a faire doctrine prohibits the protection of expressions that are standard to a particular topic, including expressions that are an industry standard in a particular area. In the business market context, when a feature, sequence, organization, or other element of the GUI becomes standard, the scenes a faire doctrine will operate to make them unprotectable by copyright. Apple Computer, Inc. v. Microsoft Corp., 799 F. Supp. 1006, 1023 (N.D. Cal. 1992) (citing Plains Cotton Co-Op Ass'n of Lubbock, Texas v. Goodpasture Computer Service, Inc., 807 F.2d 1256, 1262 (5th Cir. 1987)). The evidence establishes that customers of these programs require a complete hydraulics analysis

[42] E.g., id. at 28 ¶ 78.

report that displays all of the results and presents them using graphs that plot the results versus the depth of the analyzed well.[43] Moreover, the industry standard is to plot the graphs vertically because that is an intuitive way to display data that varies by the depth of a well.[44] The court concludes that under the scenes a faire doctrine, the general selection, display, and direction of data and charts on the graphical output are unprotectable.

This filtering leaves only the arrangement and presentation of elements in the GUI as protectable under copyright. Creativity in arrangement, however, is "a function of (i) the total number of options available, (ii) external factors that limit the viability of certain options and render others non-creative, and (iii) prior uses that render certain selections 'garden variety.'" Matthew Bender & Co., Inc. v. West Publishing Co., 158 F.3d 674, 682-83 (2d Cir. 1998). If there is a limited amount of material to select, compile, or arrange, it is less likely that the choices made will require more than a de minimis effort. Id. The court concludes that the use of an expandable tree to display a menu is not an original choice in light of the evidence that an expandable tree is

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[43]Videotaped Deposition of Alan D. McLean, Exhibit K to Defendants' MSJ Brief, Docket Entry No. 129-11, p. 51 line 24 - p. 53 line 11.

[44]Oral and Videotaped Deposition of Sanjit Roy, Exhibit I to Defendants' MSJ Brief, Docket Entry No. 129-9, p. 362 line 7 - p. 363 line 8.

a basic structure available to software developers using Microsoft Visual Studio.[45]

The court is not persuaded, however, that the arrangement and presentation of the data table, header bar, and vertical graphs on the Virtual Hydraulics SnapShot are totally devoid of originality. At minimum, screenshots of the M-I SnapShot, Baker Hughes interface, and Halliburton interface demonstrate there is some variation in the arrangement, presentation, and coloring of those elements of the results screen that is left to the discretion of the program's author.[46] To the extent that M-I's GUI is protectable, however, it is limited to these protectable elements. Infringement of the GUI cannot be found based on a similarity of the unprotectable elements described above.

4. Comparison

Having completed the filtration process, the court must determine whether MAXSITE is substantially similar to the Copyrighted Works. Engineering Dynamics, 26 F.3d at 1348. "Ultimately the court must decide whether those protectable portions of the original work that have been copied constitute a substantial part of the original work - i.e. matter that is

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[45]Oral and Videotaped Deposition of Richard Hooper, Ph.D., P.E., Exhibit A to Defendants' MSJ Brief, Docket Entry No. 129-1, p. 138 line 20 - p. 139 line 21.

[46]See Hooper Report, Exhibit D to Defendants' MSJ Brief, Docket Entry No. 129-4, pp. 35-39 (displaying and comparing the graphical results screens of each of the competing programs).

significant in the plaintiff's program." Gates Rubber, 9 F.3d at 839. The court must also consider the applicable scope of protection afforded by copyright to the particular work. Engineering Dynamics, 26 F.3d at 1348. Computer interfaces "may lie very near the line of uncopyrightability" "[t]o the extent that they are highly functional [or] contain highly standardized technical information." Id.

The only non-literal elements of the Copyrighted Works that the court found protectable are the arrangement, presentation, and coloring of the data tables, header bar, and vertical charts used in the results screen. There is no question that the output graphics of the 2015 version of MAXSITE, "HydrauliQs QuikView," is very similar to Virtual Hydraulics' SnapShot in terms of the protectable elements of the GUI.[47] The coloring and layout of the screens are virtually identical, except the order of the vertical graphs and the location of a vertical column displaying data have been moved. The 2018 version of MAXSITE, by contrast, nearly completely removed these similarities.

For the 2015 version of MAXSITE's arrangement, presentation, and coloring of the results screen to establish substantial similarity between the programs, those elements of the GUI must be important to M-I's programs as a whole. See Digital Drilling Data Systems, L.L.C. v. Petrolink Services, Inc. 965 F.3d 365, 2020

[47] See Hooper Report, Exhibit D to Defendants' MSJ Brief, Docket Entry No. 129-4, p. 23 ¶ 62, p. 24 ¶ 63.

WL 3603953, at *5 (5th Cir. July 2, 2020). In the absence of summary judgment evidence as to the qualitative and quantitative importance of the copied portion to the plaintiff's work as a whole, summary judgment of non-infringement is appropriate. Id. Because M-I has pointed to no evidence that the protectable arrangement, presentation, and coloring of the results screen are a "substantial part" of the program, the court must conclude that there is no genuine issue of material fact as to MAXSITE's substantial similarity to the Copyrighted Works. Accordingly, Defendants' MSJ will be granted as to the allegation that MAXSITE infringes on the Copyrighted Works' non-literal elements.

5. Source Code

Defendants also seek summary judgment as to literal copying of the source code. Defendants argue that there is no genuine issue of material fact as to literal infringement because M-I's expert identified at most 44 lines that appear similar between the two source codes - amounting to 0.0022% of the over two million lines in M-I's original source code. The court agrees that no reasonable jury could find that these 44 lines could establish substantial similarity on the basis of quantitative importance. See Digital Drilling, 2020 WL 3603953, at *5 (holding that copying of 5% of an original work did not satisfy the threshold for quantitative importance). And M-I has not pointed to any summary judgment evidence as to the 44 lines' qualitative importance to its overall programs. See id.

M-I argues that the court should not grant summary judgment because there is evidence Roy actually copied its source code when he wrote MAXSITE. Both factual copying and substantial similarity are distinct elements that must be established to prove copyright infringement. Nola Spice, 783 F.3d at 549. That Roy may have copied the code in writing MAXSITE does not save the copyright infringement claim if there is no genuine issue of fact as to substantial similarity. See Digital Drilling, 2020 WL 3603953, at *5 (affirming summary judgment of a copyright infringement claim on substantial similarity grounds despite actual copying). Accordingly, the court need not consider M-I's arguments that (1) comments in MAXSITE's source code prove the lines were copied from M-I's source code and (2) Defendants spoliated evidence as to access and copying of the source code. Defendants are entitled to summary judgment on M-I's copyright infringement claim based on MAXSITE's alleged infringement, including M-I's request for injunctive relief.[48]

D. M-I's Unauthorized Copying Claim Remains Live Against Roy

M-I's Complaint alleges two grounds for its copyright claim: (1) that Roy copied and distributed the Copyrighted Works without authorization, and (2) that Q'Max and Roy infringed on the Copyrighted Works by copying them to create MAXSITE. Defendants

[48]See M-I's MSJ Response, Docket Entry No. 132, p. 9 n.2.

have sought summary judgment only as to the latter ground. Accordingly, M-I may continue to pursue its copyright claim against Roy on the basis of making and distributing copies of the Copyrighted Works.

III. Motion to Enforce Protective Order and Compel Destruction of an Inadvertently Produced Document

On September 28, 2018, the court entered a Protective Order under Federal Rule of Civil Procedure 26(c).[49] The Protective Order governs the designation, maintenance, and discovery of confidential documents for use in this action.[50] The order contains a snap-back provision governing the quick return of accidentally produced materials subject to attorney-client privilege pursuant to Federal Rule of Evidence 502(d).[51] The order provides that the inadvertently producing party "must promptly notify the recipient(s) and provide a privilege log for the inadvertently produced materials," after which "[t]he recipient(s) shall gather and destroy all copies of the privileged material and certify as such to the producing party within ten (10) days of the date of the notification."[52]

M-I states that on November 26, 2019, it became aware that document M-I_QMAX00002957 ("the Document") had been inadvertently

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[49]Protective Order, Docket Entry No. 57.

[50]Id. at 1-3.

[51]Id. at 7-8 ¶ 5.

[52]Id. at 8.

produced despite containing attorney-client communications and privileged work product.[53] M-I notified Defendants and invoked a snap-back of the Document under the Protective Order.[54] On December 12, 2019, Defendants informed M-I that they did not believe the Document was privileged and that they would not allow the snap-back.[55] M-I did not submit a privilege log to Defendants until December 12.[56] M-I filed its Motion to Compel on December 13, 2019, which asks the court to compel the destruction or return of the Document.[57] Defendant responded on January 3, 2020,[58] and Plaintiff replied on January 10, 2020.[59]

Defendants argue that the Protective Order applies only to inadvertently produced materials actually "protected by the

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[53]Motion to Compel, Docket Entry No. 134, p. 4.

[54]Id.; Email from Kelvin Han dated November 26, 2019, Exhibit 2 to Motion to Compel, Docket Entry No. 134-3, p. 2.

[55]Email from Lauren Black dated December 12, 2019, 8:41 a.m., Exhibit 4 to Motion to Compel, Docket Entry No. 134-5, p. 2.

[56]Motion to Compel, Docket Entry No. 134, p. 5; Email from Lauren Black dated December 12, 2019, 3:11 PM, Exhibit 6 to Motion to Compel, Docket Entry No. 134-7 (stating that Defendants had not received a privilege log); Email from John R. Keville dated December 12, 2019, 4:19 p.m., Exhibit 7 to Motion to Compel, Docket Entry No. 134-8 (attaching a privilege log).

[57]Motion to Compel, Docket Entry No. 134, p. 2.

[58]Defendants' Response in Opposition to Motion to Enforce Protective Order and Compel Destruction of Inadvertently Produced Document ("Defendants' Discovery Response"), Docket Entry No. 140.

[59]Plaintiff M-I LLC's Reply in Support of Its Motion to Enforce the Terms of the Protective Order and Compel the Destruction of an Inadvertently Produced Document ("M-I's Discovery Reply"), Docket Entry No. 141.

attorney-client privilege or work product privilege." The court disagrees. The snap-back provision in the Protective Order is essentially a recitation of the snap-back procedure in Federal Rule of Civil Procedure 26. That rule requires snap-back for any information produced in discovery for which there is a claim of privilege. Fed. R. Civ. P. 26(b)(5)(B). Defendants' argument that they could withhold the Document from snap-back under the Protective Order while they could not do so under FRCP 26(b)(5)(B) lacks merit.

The Document is a single page containing two April 3, 2018, emails. One email contains two requests for information. The second email responds to the two questions and attaches a sixteen-page PDF. The parties agree that the underlying facts provided in the email response and the sixteen-page PDF are not privileged, and M-I agrees that Defendants are entitled to discovery of those parts of the Document.[60] The only issue is whether the Document is privileged because one of the questions and responses is protected by the attorney-client privilege. M-I argues that the Document is privileged because it contains communications within M-I's corporate setting made for the purpose of collecting information to be transmitted to counsel.[61] Defendants argue that the Document is

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[60]Motion to Compel, Docket Entry No. 134, p. 5 & n.4; M-I's Discovery Reply, Docket Entry No. 141, p. 3 & n.3; M-I_QMAX00002957, Exhibit A to Defendants' Discovery Response, Docket Entry No. 140-1.

[61]Motion to Compel, Docket Entry No. 134, pp. 6–7.

not privileged, and alternatively that there is a substantial need for Defendants to be allowed to use the Document as evidence even if it is privileged.[62]

Attorney-client privilege "exists 'to encourage full and frank communication between attorneys and their clients.'" OneBeacon Ins. Co. v. T. Wade Welch & Associates, Civil Action No. H-11-3061, 2013 WL 6002166, at *2 (S.D. Tex. Nov. 12, 2013) (Miller, J.) (quoting United States v. El Paso Co., 682 F.2d 530, 538 (5th Cir. 1982)). The elements of attorney-client privilege are: "(1) a confidential communication; (2) made to a lawyer or his subordinate; (3) for the primary purpose of securing either a legal opinion, legal services, or assistance in a legal proceeding." SEC v. Microtune, Inc., 258 F.R.D. 310, 315 (N.D. Tex. 2009). The party asserting the privilege bears the burden to demonstrate how each communication satisfies all the elements of the privilege. Id. (citing Hodges, Grant & Kaufmann v. United States, 768 F.2d 719, 721 (5th Cir. 1985)).

The court narrowly construes the privilege to the bounds necessary to protect these principles because the "assertion of privileges inhibits the search for truth." Id. (quoting Navigant Consulting, Inc. v. Wilkinson, 220 F.R.D. 467, 477 (N.D. Tex. 2004)). The privilege is limited to the disclosures made to an

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[62]Defendants' Discovery Response, Docket Entry No. 140, pp. 5-6 & n.14.

attorney that are "necessary to obtain informed legal advice which might not have been made absent the privilege." Id. (quoting Fisher v. United States, 96 S. Ct. 1569, 1577 (1976)). Therefore, "the privilege does not protect documents and other communications simply because they result from an attorney-client relationship." Id. (citing Navigant Consulting, 220 F.R.D. at 477).

"This privilege applies in the corporate setting when an employee, on instructions from a superior, communicates with counsel that which is necessary to supply the basis for legal advice." Nalco Co., Inc. v. Baker Hughes Inc., 2017 WL 3033997, at *2 (S.D. Tex. July 18, 2017) (citing Upjohn v. United States, 101 S. Ct. 677, 685 (1981)). "Communications that reflect counsel's advice to the corporation do not lose their privileged status when shared among corporate employees who share responsibility for the subject matter of the communication." Nalco, 2017 WL 3033997, at *2.

Based on the court's in camera review of the Document and affidavit testimony submitted under seal,[63] the court concludes that the Document contains privileged communications within a corporate setting between employees at the behest of gathering information for the corporate counsel. The authorities cited by Defendants are inapposite because they do not involve this particular type of

[63]M-I_QMAX00002957, Exhibit A to Defendants' Discovery Response, Docket Entry No. 140-1; Declaration of Lee Conn, Docket Entry No. 135, pp. 1–2 ¶¶ 2–7.

attorney-client privilege. Defendants' argument that M-I seeks protection of facts rather than an attorney-client communication lacks merit because M-I has only sought shielding of the email itself, not any underlying facts the email may have revealed or be related to.

Defendants also argue that they should be permitted to use the Document because they have a substantial need to demonstrate that M-I had ready access to certain materials, and Defendants face undue hardship in obtaining evidence of such elsewhere.[64] But discovery of privileged material is generally not available when the information sought is available by other means. In re International Systems and Controls Corp. Securities Litigation, 693 F.2d 1235, 1240 (5th Cir. 1982). Defendants can obtain the same facts by deposing the employees involved. That Defendants may need to re-depose the M-I employees involved without the use of the Document does not meet the high level of undue hardship to enable discovery of privileged material. See id. ("The cost of one or a few depositions is not enough to justify discovery of [privileged documents]."). Accordingly, the court will grant M-I's Motion to Compel and order Defendants to destroy any copies of the Document in accordance with the Protective Order. Because the parties agree that parts of the Document are not privileged, the court will order

[64]Defendants' Discovery Response, Docket Entry No. 140, p. 6 n.14.

M-I to produce a redacted version of the Document to Defendants after destruction of the unredacted version is certified.

IV. Motion to Exclude Expert Opinion

Also pending before the court is Defendants' Motion to Exclude Expert Testimony (Docket Entry No. 126). The court's practice is to rule on motions to exclude expert testimony during trial because experts frequently modify their opinions, and at trial counsel often establish more extensive predicates for experts' testimony. Moreover, the context in which the testimony is offered is often necessary to rule on such issues. The Motion to Exclude Expert Testimony will be denied without prejudice.

V. Conclusion and Order

For the reasons explained above, the court concludes that M-I's copyright claim based on the MAXSITE Hydraulics's alleged infringement of M-I's Copyrighted Works fails because M-I has not identified any protectable non-literal elements of its Copyrighted Works other than the limited presentation and arrangement of its output GUI, and there is no evidence that the protectable portions of the output GUI and the source code that Defendants are alleged to have copied are important enough to the M-I's overall programs to render MAXSITE substantially similar to them. Accordingly, Defendants' Motion for Summary Judgment as to Copyright Infringement (Docket Entry No. 128) is **GRANTED**. M-I's copyright

claim against Q'Max Solutions, Inc., and Q'Max America, Inc. are dismissed with prejudice, and its claim against Sanjit Roy is dismissed except as based on his unauthorized copying and distribution of the Copyrighted Works.

The court concludes that Defendants retained inadvertently disclosed privileged communications contrary to the court's Protective Order (Docket Entry No. 57). Accordingly, Plaintiff M-I LLC's Motion to Enforce the Terms of the Protective Order and Compel the Destruction of an Inadvertently Produced Document (Docket Entry No. 134) is **GRANTED**. Defendants are **ORDERED** to gather and destroy all copies of M-I_QMAX00002957 under its control and to certify the destruction to M-I within ten days of the submission of this opinion. M-I is **ORDERED** thereafter to produce a version of M-I_QMAX00002957 with the privileged communication redacted.

Defendants' Motion to Exclude Testimony of David Leathers and Expert Testimony on Copyright Damages (Docket Entry No. 126) is **DENIED WITHOUT PREJUDICE**.

Based on this opinion and the court's August 6, 2019, Memorandum Order and Opinion (Docket Entry No. 111), M-I's remaining claims in the case are: (1) its federal and state law trade secrets claims against all Defendants; (2) its conversion claim against all Defendants; (3) its limited copyright claim against Roy; and (4) its breach of fiduciary duty claim against Roy.

The court will hold a scheduling conference on August 21, 2020, at 2:00 p.m., in Courtroom 9-B, Ninth Floor, United States Courthouse, 515 Rusk Street, Houston, Texas 77002.

On August 4, 2020, defendant Q'Max America, Inc. filed a petition under Chapter 7 of the Bankruptcy Code under Case No. 20-60030, Suggestion of Bankruptcy, Docket Entry No. 145. A petition filed under 11 U.S.C. § 301, et seq., operates as a stay of the continuation of a judicial proceeding against the debtor that was commenced before the initiation of the bankruptcy proceeding. 11 U.S.C. § 362(a)(1). Accordingly, defendant Q'Max America, Inc. is **DISMISSED**. Plaintiff may reinstate this action against Q'Max America, Inc. upon notice to this court of the discontinuance of the stay pursuant to 11 U.S.C. § 362(c)(2), provided such notice is filed within 30 days after the bankruptcy stay is discontinued. This action remains pending against the other defendants.

SIGNED at Houston, Texas, on this the 6th day of August, 2020.

SIM LAKE
SENIOR UNITED STATES DISTRICT JUDGE